

## INSECT REARING ROOMS

We have over a decade of highly specialized experience in insect rearing working with researchers to address their needs for studies involving *Drosophila melanogaster*, lepidoptera, coleoptera, mosquitos and other diptera. Mantids, weevils, moths, bees and wolf spiders are among the various insect types we have accommodated over the years.

### Benefits

- Exceptionally quiet.
- Lower vibrations than a typical refrigerator.
- Increased energy efficiency.
- We use white aluminum or stainless steel interior finishes. We don't recommend use of uncoated galvanized steel as it may oxidize and cause harm to insects.
- All exposed surfaces are coated with a baked-on finish, to reduce the potential for corrosion to the highest extent possible.
- Filtration or screening of intake air and evaporator housing
- Vestibules, screens, vinyl/air entry curtains and various threshold barriers available.
- Precision Fluid Temperature Control Unit cooling system utilizes a combination of refrigerant technologies and glycol/water heat exchange technologies.
- Ability to shut down all heat or cold producing equipment in the event of a malfunction via standard alarms and redundant safeties.
- Ability to decontaminate the chamber with high heat.
- ADA compliant available interior, exterior ramps, platforms etc.
- We utilize precisely controlled ultrasonic humidification. Very little heat is generated = smaller compressor = lower energy usage. A further benefit is excellent temperature uniformity.
- Site visits are provided as needed, to work with nearly any architectural features and maximize the available work area.
- Supplied with LED lights which emit significantly more light per unit of input energy than fluorescent bulbs. They also produce less radiant heat, and with less heat used, the cooling requirement for the controlled environment is diminished and the total energy used by an LED-equipped chamber is substantially reduced.
- Optional Diurnal/Circadian light control with available automatic dimming.



### Standard Features

- 4-6" Polyurethane Insulated Panels
- Epoxy Coated Air Handlers
- Exceptional Temperature And Humidity Uniformity
- Temperature Control At Sensor:  $\pm 0.2^{\circ}$  C
- Added Ultrasonic Humidification
- Humidity Control At Sensor:  $\pm 0.5\%$
- High / Low Alarms
- Flexible Configurations
- Energy Efficient
- Non-proprietary Controls
- Pre-tested, Pre-charged Refrigeration Systems
- Diurnal ramping/soaking/cycling of temperature.
- Corrosive Resistant Equipment
- Drastically lower maintenance costs compared to competitors

### Optional Features

- Added Dehumidification
- Extended Temperature And Humidity Ranges
- Stainless Steel / Special Surfaces
- Ethernet / Remote Monitoring / Alarming
- Added Redundancy in Controls and/or Conditioning
- Touch Screen Control Interface
- Multi-point Digital Recording
- Water-Cooled Or Air-Cooled Condensers
- Custom Lighting Systems
- High Density Shelving
- Unlimited Door / View Window Sizing
- Insulated Glass View ports
- High Weight Capacity Flooring
- Calibration / Validation / Maintenance Services
- Vestibules, screens, vinyl/air entry curtains and various threshold barriers available.

### The Darwin Advantage

All installed instrumentation is calibrated to NIST traceable standards and provided with a calibration form. In-house, factory calibrations are performed using state-of-the-art equipment with great accuracies. These reports are three-point verifications, traceable calibration documents.